

GenCore version 4.5  
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OM nucleic - nucleic search, using sw model

Run on: August 27, 2001, 17:59:23 ; Search time 193.18 Seconds  
(without alignments)  
2278.492 Million cell updates/sec

Title: US-09-784-340-3\_COPY\_7800\_8500

Perfect score: 701  
Sequence: 1 gctgtgtcgaagtgcagaaaaa.....taggattccagaaaaaattta 701

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 730101 segs, 313950809 residues

Total number of hits satisfying chosen parameters: 1460202

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

N.Geneseq\_0601.\*  
1: /SIDSL/gcgdata/geneseq/geneseqn/NA1980.DAT:\*  
2: /SIDSL/gcgdata/geneseq/geneseqn/NA1981.DAT:\*  
3: /SIDSL/gcgdata/geneseq/geneseqn/NA1982.DAT:\*  
4: /SIDSL/gcgdata/geneseq/geneseqn/NA1983.DAT:\*  
5: /SIDSL/gcgdata/geneseq/geneseqn/NA1984.DAT:\*  
6: /SIDSL/gcgdata/geneseq/geneseqn/NA1985.DAT:\*  
7: /SIDSL/gcgdata/geneseq/geneseqn/NA1986.DAT:\*  
8: /SIDSL/gcgdata/geneseq/geneseqn/NA1987.DAT:\*  
9: /SIDSL/gcgdata/geneseq/geneseqn/NA1988.DAT:\*  
10: /SIDSL/gcgdata/geneseq/geneseqn/NA1989.DAT:\*  
11: /SIDSL/gcgdata/geneseq/geneseqn/NA1990.DAT:\*  
12: /SIDSL/gcgdata/geneseq/geneseqn/NA1991.DAT:\*  
13: /SIDSL/gcgdata/geneseq/geneseqn/NA1992.DAT:\*  
14: /SIDSL/gcgdata/geneseq/geneseqn/NA1993.DAT:\*  
15: /SIDSL/gcgdata/geneseq/geneseqn/NA1994.DAT:\*  
16: /SIDSL/gcgdata/geneseq/geneseqn/NA1995.DAT:\*  
17: /SIDSL/gcgdata/geneseq/geneseqn/NA1996.DAT:\*  
18: /SIDSL/gcgdata/geneseq/geneseqn/NA1997.DAT:\*  
19: /SIDSL/gcgdata/geneseq/geneseqn/NA1998.DAT:\*  
20: /SIDSL/gcgdata/geneseq/geneseqn/NA1999.DAT:\*  
21: /SIDSL/gcgdata/geneseq/geneseqn/NA2000.DAT:\*  
22: /SIDSL/gcgdata/geneseq/geneseqn/NA2001.DAT:\*

Pred. NO. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	98.2	14.0	936	22	AAF58252
2	98.2	14.0	936	22	AAF58254
3	98.2	14.0	936	22	AAF58257
4	98.2	14.0	936	22	AAF58259
5	98.2	14.0	936	22	AAF58262
6	98.2	14.0	936	22	AAF58255
7	98.2	14.0	936	22	AAF58252
8	98.2	14.0	936	22	AAF58254
9	98.2	14.0	936	22	AAF58257
10	98.2	14.0	936	22	AAF58259
11	98.2	14.0	936	22	AAF58262

12	98	14.0	936	22	AAF58255
13	82.6	11.8	240825	21	AAF22497
14	79.8	11.4	375	21	AACT7505
15	58.2	8.3	1906	19	AAV39012
16	55.8	8.0	1517	19	AAV59788
17	51.8	7.4	244	22	AAF58238
18	50	7.1	244	22	AAF58238
19	50	7.1	383	22	AAF64418
20	49.4	7.0	1024	21	AAZ97218
21	49.4	7.0	1024	21	AAZ97219
22	40.2	5.7	8133	22	AAE32205
23	39.4	5.6	4037	20	AAZ20053
24	38.8	5.5	3091	20	AAK51707
25	37.4	5.3	5433	21	AAA99265
26	37.2	5.3	6042	21	AAAT0199
27	36.6	5.2	116227	20	AAK20248
28	36.6	5.2	910715	20	AAK20248
29	36.2	5.2	5163	22	AAK44658
30	35	5.0	600	20	AAV86185
31	34.8	5.0	1355	21	AAK87765
32	34.8	5.0	1355	22	AAK64047
33	34.6	4.9	268	14	AAQ39823
34	34.6	4.9	268	14	AAQ39823
35	34	4.9	1723	18	AAAT91745
36	34	4.9	4937	18	AAK85307
37	33.8	4.8	1676	19	AAV35312
38	33.8	4.8	1713	21	AAK59524
39	33.8	4.8	1718	21	AAK59525
40	33.8	4.8	2182	18	AAAT9933
41	33.8	4.8	2281	18	AAAT9936
42	33.6	4.8	204	21	AAK18219
43	33.6	4.8	6033	21	AAAT0152
44	33.6	4.8	138169	21	AAA34791
45	33.6	4.8	141589	21	AAF20913

#### ALIGNMENTS

RESULT 1	
AAF58252/c	
ID	AAF58252 standard; DNA; 936 BP.
XX	
AC	AAF58252;
XX	
DT	24-APR-2001 (first entry)
XX	
DE	Oligonucleotide D1835.
XX	
KW	Electron-transfer group; ETM; mismatch; genot ping;
XX	gene expression; ss.
OS	Synthetic.
XX	
PN	WO200107665-A2.
XX	
PD	01-FEB-2001.
XX	
PF	26-JUL-2000; 2000WO-US20476.
XX	
PR	26-JUL-1999; 99US-0145695.
XX	
PR	17-MAR-2000; 2000US-0190259.
XX	
PA	(CLIN-) CLINICAL MICRO SENSORS INC.
XX	
PI	Umek RM;
XX	
DR	WPI; 2001-159728/16.
XX	
PT	Nucleic acids containing electron-transfer group, useful as labels in
XX	hybridization assays, e.g. for genotyping, allowing repeat analyses on
PT	a single surface
XX	

Oligonucleotide D1  
Human PG-3 gene.  
Human ORFX ORF3060  
CD30 ligand gene u  
Human secreted pro  
Oligonucleotide D1  
Oligonucleotide D1  
Novel human polynu  
Human prostate can  
Human prostate can  
Arabidopsis thalia  
Plasmodium falcipa  
DNA encoding a hum  
Plasmodium yoelli  
Plasmodium falcipa  
Borrelia burgdorfe  
Borrelia burgdorfe  
Novel protein kina  
EST clone J635. H  
Human secreted pro  
cDNA encoding huma  
Expressed Sequence  
Human brain Expres  
Tobacco calcium/ca  
Arabidopsis thalia  
DNA encoding 2 sta  
Human secreted pro  
Human secreted pro  
Facillus subtilis  
Human secreted pro  
Plasmodium falcipa  
Human adenosine re  
Human ELAM-1 polyn



[illegible][illegible]

370 tatctagtgtcctataaggtgttaccaggaagcagtgcttaagtaaaatcctgactg 429

[illegible]

RESULT 6  
AAF58255/c  
ID AAF58255 standard; DNA; 938 BP.

AC AAF58255;

DT 24-APR-2001 (first entry)

DE Oligonucleotide D1876.

KW Electron-transfer group; ETM; mismatch; genotyping;  
KW gene expression; ss.

OS Synthetic

PN W0200107665-A2.

PD 01-FEB-2001.

PF 26-JUL-2000; 2000WO-US20476.

PR 26-JUL-1999; 99US-0145695.

XX

XX 1130

XX 12/1/77

REF: 2001-1037/26/10-  
XX  
XX

PT hybridization assays, e.g. for genotyping, allowing repeat analyses on nucleic acids containing electron-transfer group, useful as labels in PCR

XX  
PI  
a single surface

PS Example 6; Page 12/; 139pp; English:  
XX

the present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having

CC detection of nucleic acids: especially of substitutions (mismatches)

CC and single-nucleotide polymorphisms, e.g. for genotyping,  
monitoring gene expression

Sequence 938 BP. A A: 144 C: 9 G: 5 T: 776 other:

Query Match	14.08;	Score 98.2;	DB 22;	Length 938;
Best Local Similarity	1.18;	Prod No 150-16;		

Matches 7; Conservative 404; Mismatches 252; Indels 0; Gaps 0;

OY	10	aagtgagaaacatggygaanaacttaaccaaacacataaaalacagaaacagcttctt	69
Db	676	www	617
OY	70	tgaccattccagagaaagagttcagcatccctcttgaaagccactgagagaagaat	129
Db	616	www	557
OY	130	tctctgygaaagcacatccaacatgaaatgagaccagaagaagatgagagctta	189
Db	556	www	497
OY	190	tgtccaaaatgtaactcggatcccgagggtgtaaccagtggtgggtcccaatgggaac	249
Db	496	www	437
OY	250	gtaattgtaagtttaatgcaagcagcaagaatccatgtaggcatctcgagctaa	309
Db	436	www	377
OY	310	gatagtcacttggcatactgcacagaatctgacagtttccaagccaaatgagctg	369
Db	376	www	317
OY	370	tatcagtgttcctataaggtgtgttaccagagagcagtgcttaagtaaaatcctgactg	429
Db	316	www	257
OY	430	aacacattgaggaatlggaagaggtggaagatttaaaatggtcagtggttactaga	489
Db	256	www	197
OY	490	ccctgctctgcatggaanaatccaactataatttaaatgcatccagacaacataaa	549
Db	196	www	127
OY	550	ttaataagaattaccacaatagctatgtaacaactcgggttaactatactactagag	609
Db	136	www	77
OY	610	tgaagaagaacccctcattccatttatggaatatataccaactccataagagag	669
Db	76	www	17
OY	670	ttt 672	
Db	16	www 14	

RESULT	7
AAF58252	
ID	AAF58252 standard; DNA; 936 BP.

AC AAF58252;

DT 24-APR-2001 (first entry)

DE Oligonucleotide D1835.

KW Electron-transfer group; ETM; mismatch; genotyping;

XX  
XX

XX

[illegible]

XX	2	4	7	10	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55	58	61	64	67	70	73	76	79	82	85	88	91	94	97	100
----	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

	0 / 40750	0M00007	, 0007	UD0	07	JF
XX						XX

PR 17-MAR-2000; 2000US-0190259

yy

(CLIN-) CLINICAL MICRO SENSORS INC.

Umek RM;

WPI: 2001-159728/16.

Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface

Example 6; Page 127; 159pp; English.

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches) and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

Sequence 936 BP; 4 A; 139 C; 10 G; 7 T; 776 other;

Query Match 14.0%; Score 98; DB 22; Length 936;

Best Local Similarity 0.7%; Pred. No. 1.7e-16;

Matches 5; Conservative 421; Mismatches 266; Indels 0; Gaps 0;

```

OY 10 aagtgagaacatgaggagaacttaacacataataataacagaaagctctct 69
DB 14 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 73
OY 70 tgaccatttctagagaaagatcagatccctgttaagccactaggaagaaat 129
DB 74 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 133
OY 130 tctctggaagaaagacattcaacatgatgagaccagaagagtgagatcta 189
DB 134 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 193
OY 190 tctgcacaaatgttactggatccagggtgttactaggttggttccatgggact 249
DB 194 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 253
OY 250 gtaattggttggttaataagacagacacaaagtcattgagactgaa 309
DB 254 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 313
OY 310 gatagtcacttggcatatctgcacagaatcgtatcagtcacccaagttagctg 369
DB 314 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 373
OY 370 tatctagttgtcctataggtgtgtaccagagagcagtggtgaataaatcctgactg 429
DB 374 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 433
OY 430 aacacattgaggaatggaagaggtggaagatttaacggtgtcagtgactaga 489
DB 434 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 493
OY 490 cctgcttctgtatggaatcaactatatttaaatgatcagcagacaataaa 549
DB 494 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 553
OY 550 ttataagaattacccaatagctatgtaacaatactgggttacttactactagag 609
DB 554 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 613
OY 610 tgaagaagaaacccatattccattttagaataataataacataaggaag 659
DB 614 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 673
OY 670 ttccagagcagtagatttccgaaaaata 701
DB 674 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 705

```

RESULT 8

AAF58254

ID AAF58254 standard; DNA; 936 BP.

AC AAF58254;

DT 24-APR-2001 (first entry)

DE Oligonucleotide D1875.

KW Electron-transfer group; ETM; mismatch; genotyping;

OS Synthetic.

PN WO200107665-A2.

PD 01-FEB-2001.

PF 26-JUL-2000; 2000MO-US20476.

PR 26-JUL-1999; 99US-0145695.

PA 17-MAR-2000; 2000US-0190259.

(CLIN-) CLINICAL MICRO SENSORS INC.

Umek RM;

WPI: 2001-159728/16.

Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface

Example 6; Page 127; 159pp; English.

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches) and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

Sequence 936 BP; 4 A; 144 C; 7 G; 5 T; 776 other;

Query Match 14.0%; Score 98; DB 22; Length 936;

Best Local Similarity 0.7%; Pred. No. 1.7e-16;

Matches 5; Conservative 421; Mismatches 266; Indels 0; Gaps 0;

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OY 10 aagtgagaacatgaggagaacttaacacataataataacagaaagctctct 69
DB 14 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 73
OY 70 tgaccatttctagagaaagatcagatccctgttaagccactaggaagaaat 129
DB 74 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 133
OY 130 tctctggaagaaacatccaatagctatgtaacaatactgggttacttactagag 189
DB 134 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 193
OY 190 tctgcacaaatgttactggatccagggtgttactaggttggttccatgggact 249
DB 194 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 253
OY 250 gtaattggttggttaataagacagacacaaagtcattgagactgaa 309
DB 254 wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww 313
OY 310 gatagtcacttggcatatctgcacagaatcgtatcagtcacccaagttagctg 369

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Db 314 ..... 373
QY 370 tatltagtgcctataggtggttacacagagcagtggtgtaagtaaaactcgtcgt 429
Db 374 ..... 433
QY 430 aacacattgaggaatggaagagtggaagatttaacggtgcagtggtgactaaga 489
Db 434 ..... 493
QY 490 cctgctctgtagtgaataatcaactatacttaaatgcatagccagacataaaa 549
Db 494 ..... 553
QY 550 ttataagaattaccacatgcatgtagtaacatactggtttactactactacagag 609
Db 554 ..... 613
QY 610 tgaagaagaaacccctcatctccatttataggaataatacaaatcctataaggaag 669
Db 614 ..... 673
QY 670 ttcaagagccagtaggattccagaaaaatla 701
Db 674 ..... 705
```

## RESULT 9

AAF58257 standard; DNA; 936 BP.

AAF58257;

24-APR-2001 (first entry)

Oligonucleotide D1954.

Electron-transfer group; ETM; mismatch; genotyping;

gene expression; ss.

Synthetic.

WO200107665-A2.

01-FEB-2001.

26-JUL-2000; 2000MO-US20476.

26-JUL-1999; 99US-0145695.

17-MAR-2000; 2000US-0190259.

(CLIN-) CLINICAL MICRO SENSORS INC.

Umek RM;

WPI; 2001-159728/16.

Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface

Example 6; Page 127; 159pp; English.

The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having

different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches)

and single-nucleotide polymorphisms, e.g. for genotyping, monitoring gene expression.

Sequence 936 BP; 5 A; 142 C; 7 G; 6 T; 776 other;

Query Match 14.0%; Score 98; DB 22; Length 936;  
Best Local Similarity 0.7%; Pred. No. 1.7e-16;  
Matches 5; Conservative 421; Mismatches 266; Indels 0; Gaps 0;

```
QY 10 aagtgaagaatacatgaggaacttaaccaacacataaataacagaacagctctc 69
Db 14 ..... 73
QY 70 tgaccatttcagagaagaaggttcagcatcccttgtaagccactggaagaagaat 129
Db 74 ..... 133
QY 130 tctctggaagaacacatccaatgaatgagacaaagaagtgaggatccta 189
Db 134 ..... 193
QY 190 tctgcaaatgtaactggatccaggtgttaccagtggttccaatggggaact 249
Db 194 ..... 253
QY 250 gtaattgtaggttaatgcaagcagcacaagtcacatgagcattctgagctgaa 309
Db 254 ..... 313
QY 310 gatagtcattggcatatctgcacagaatctgattcagtgtaagcccaagtagctg 369
Db 314 ..... 373
QY 370 tatltagtgcctataggtggttacacagagcagtggtgtaagtaaaactcgtcgt 429
Db 374 ..... 433
QY 430 aacacattgaggaatggaagagtggaagatttaacggtgcagtggtgactaaga 489
Db 434 ..... 493
QY 490 cctgctctgtagtgaataatcaactatacttaaatgcatagccagacataaaa 549
Db 494 ..... 553
QY 550 ttataagaattaccacatgcatgtagtaacatactggtttactactactacagag 609
Db 554 ..... 613
QY 610 tgaagaagaaacccctcatctccatttataggaataatacaaatcctataaggaag 669
Db 614 ..... 673
QY 670 ttcaagagccagtaggattccagaaaaatla 701
Db 674 ..... 705
```

## RESULT 10

AAF58259 standard; DNA; 936 BP.

AAF58259;

24-APR-2001 (first entry)

Oligonucleotide D2004.

Electron-transfer group; ETM; mismatch; genotyping;

gene expression; ss.

Synthetic.

WO200107665-A2.

01-FEB-2001.

PE 26-JUL-2000; 2000WO-US20476.  
 XX  
 PR 26-JUL-1999; 9905-0145695.  
 PR 17-MAR-2000; 2000US-0190259.  
 XX  
 PA (CLIN-) CLINICAL MICRO SENSORS INC.  
 XX  
 PI Umek RM;  
 XX  
 DR WPI; 2001-159728/16.  
 XX  
 PT Nucleic acids containing electron-transfer group, useful as labels in  
 PR hybridization assays, e.g. for genotyping, allowing repeat analyses on  
 PT a single surface  
 XX  
 XX Example 6; Page 120; 159pp; English.  
 PS  
 XX  
 CC The present invention relates to a composition comprising two nucleic  
 CC acids each containing an electron-transfer group (ETM) having  
 CC different redox potentials. The invention is used for electronic  
 CC detection of nucleic acids, especially of substitutions (mismatches)  
 CC and single-nucleotide polymorphisms, e.g. for genotyping,  
 CC monitoring gene expression.  
 XX  
 SO Sequence 936 BP; 6 A; 138 C; 8 G; 8 T; 776 other;

Query Match	14.0%;	Score 98;	DB 22;	Length 936;
Best Local Similarity	0.7%;	Pred. No. 1.7e-16;		
Matches	5;	Conservative 421;	Mismatches 266;	Indels 0;
			Gaps	0;

[illegible]

```
Db    614 www.....www 673
```

---

```
Qy    670 ttccagacgactgatcttcagaataatla 701  
      :: : : : :  
Db    674 ..... 705
```

```

RESULT 11
AAF58262
ID AAF58262 standard; DNA; 936 BP.
XX

```

AC AAF58262

24-APR-2001 (first entry)

Oligonucleotide D2007.

Electron-transfer group; ETM; mismatch; genotyping;

gene expression

05 Synthetic.  
XX

PN WO200107665-  
XX

PD 01-FEB-2001.  
XX

PF 26-JUL-2000; 2000WO-US20476.  
XX

PR 26-JUL-1999; 99US-0145695.  
PR 17-MAR-2000; 2000US-0190259.

XX  
PA (CLIN-) CLINICAL MICRO SENSORS INC.

XX	Umek RM;
PI	

XX  
DR WPI; 2001-159728/16.

XX Nucleic acids containing electron-transfer group, useful as labels in PT

PT hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface

XX Example 6: Page 128: 159nn: English

XX The present invention relates to a composition comprising two sub-

different redox potentials. The innovation is used for obtaining acids each containing an electron-transfer group (ETM) having the present invention relates to a composition comprising two nucleic

CC and detection of nucleic acids, especially of substitutions (mismatches),

CC and single nucleotide polymorphisms, e.g. for genotyping  
CC monitoring gene expression.

Sequence 936 BP; 5 A; 139 C; 10 G; 6 T; 776 other;

Query Match	14.08;	Score 98;	DB 22;	Length 936;
-------------	--------	-----------	--------	-------------

Best Local Similarity	0.78;	Pred. No. 1.7e-16;
Matches	5;	Conservative 421; Mismatches 266; Indels 0; Gaps 0

10 aagtgagaaacatgaggaaacttaaccaaacacataaaataacagaaacagtcttctt 69

[illegible]

Oy 70 tgaccattcttagagaaagaatcagcatcccttqtaagccactaagaaagaaagaat 129

D**b**

74 www..... 133

130 tctctgaaaaacacatccaacatgaatcgaagacacagaaaaagatgaagatcra 1A9

[illegible]

190 tataccaaaatat taaact aaagatccaaatat tat taccataaactt aaagaaat 340  
.....  
.....

[illegible]



OY	250	gtaattgttaagttaagcaagaacgaagtccaatgagcattctgaagctaaa	309
Db	254	#####	313
OY	310	gatagtcaacttggcatactgcacagaactgcagtgattcaagcccaagtgcg	369
Db	314	#####	373
OY	370	tatctagtgtcctatagggtggtttaccagagcgatggtgaataaaatcctgactg	429
Db	374	#####	433
OY	430	aacacattgaggaattgaaaggagtggaagattttaaagcgtgtcagttgttaaga	489
Db	434	#####	493
OY	490	ccctctctgtatgagaaattcaactataattttaaigtcatgccaacaataaa	549
Db	494	#####	553
OY	550	ttataagaatttaccacatatgctatgtlaacaatactggttactattactaagag	609
Db	554	#####	613
OY	610	tgaagaagaaacccctcatttccatttattatgtaataataacaaatcctataagaag	669
Db	614	#####	673
OY	670	tttcagagccagtagatttccgaaaaata 701	.
Db	674	#####	705

	RESULT	12
AAFS8255	ID	AAF58255 standard; DNA; 938 BP.
XX	AC	AAF58255;
XX	DT	24-APR-2001 (first entry)
XX	DE	Oligonucleotide D1876.
KW	KW	Electron-transfer group; ETM; mismatch; genotyping;
KW	KW	gene expression; SS.
OS	OS	Synthetic.
PN	PN	WO200107665-A2.
XX	PD	01-FEB-2001.
XX	PF	26-JUL-2000; 2000WO-US20476.
XX	PR	26-JUL-1999; 99US-0145695.
XX	PA	17-MAR-2000; 2000US-0190259.
(CLIN-)	CLINICAL MICRO SENSORS INC.	
Unexk RM:		
DR	WPI:	2001-159728/16.
XX	PT	Nucleic acids containing electron-transfer group, useful as labels in hybridization assays, e.g. for genotyping, allowing repeat analyses on a single surface
XX	PS	Example 6; Page 127; 159pp; English.
CC	CC	The present invention relates to a composition comprising two nucleic acids each containing an electron-transfer group (ETM) having different redox potentials. The invention is used for electronic detection of nucleic acids, especially of substitutions (mismatches)

CC and single-nucleotide polymorphisms, e.g. for genotyping  
CC monitoring gene expression.  
XX  
SQ Sequence 938 BP; 4 A; 144 C; 9 G; 5 T; 776 other;

Query Match	14.0%;	Score 98;	DB 22;	Length 938;
Best Local Similarity	0.7%;	Pred. No. 1.7e-16;		
Matches	5;	Conservative 421;	Mismatches 356;	Indels 0;
				Gaps 0;

QY	10	aagtgagaaacaatcgggagaaacttaaccacaacataaataacagaaacgtctctt	69
Db	14	#####	73
QY	70	tgaccattctagagaaagagttcagcatcccttgtaagccaactagagaagaat	1299
Db	74	#####	1333
QY	130	ttctctggaaaagacattccaacatgaatlgagaccagaagagagtggaggatcta	1899
Db	134	#####	1933
QY	190	tgtgccaaatgtaactggatccagggtgttaccagtggtgttccaatggggaact	2499
Db	194	#####	2533
QY	250	gtaattgttaggtttaatgcaagcaggacaaagtcocatggaggaactctgaaactgaa	3099
Db	254	#####	3133
QY	310	gatagtcaacttgcacatctgcacagaatctgatactgatttccaagcccaagttagctg	3699
Db	314	#####	3733
QY	370	tatcatgttgcacataggtgtgtaccaggagcgagtgtgaagtaaaatccctgact	4299
Db	374	#####	4333
QY	430	aacacattgagaaatggaagaggtggaagatttaaaatggttcagtggtgaactaga	4899
Db	434	#####	4933
QY	490	ccgtctctgtagtgaagaattcaactataatttaaatgcatagccagacaacataaa	5499
Db	494	#####	5533
QY	550	ttataagaatttaccacaatgactgtagtaacaactggtttactattactacagag	6099
Db	554	#####	6133
QY	610	tgaagaanaaacctcatcttcccatlttaatggaataataaacaatccataagaag	6699
Db	614	#####	6733
QY	670	tttcagagccagtagatttccagaagaata 701	
Db	674	##### 705	

AAE24497	RESULT_13
XX	ID
AC	AAE24497 standard; CDNA; 240825 BP.
XX	AAE24497;
XX	
DT	23-MAY-2001 (first entry)
XX	
DE	Human PG-3 gene.
XX	
KM	Human; PG-3; cancer; BRCA1; chromosome 8p23; ds
XX	
OS	Homo sapiens.
XX	

Key	Location/Qualifiers
misc_feature	1..2000
primer_bind	/*tag= a /note= "5' regulatory region" 1823..1840
primer_bind	/*tag= b 1980..1998
misc_binding	/*tag= c 1987..2011
allele	/*note= "binds probe" replace(1999,C)
primer_bind	/*tag= e complement(2000..2018)
CDS	/*tag= f 2001..238825
exon	/*tag= g /product= "PG-3" /note= "this sequence contains introns" 2001..2079
primer_bind	/*tag= h /label= "A" 2108..2125
primer_bind	/*tag= i 4559..4577
primer_bind	/*tag= j 4582..4600
misc_binding	/*tag= k 4589..4613
allele	/*tag= l /note= "binds probe" replace(4601,G)
primer_bind	/*tag= m complement(4602..4620)
exon	/*tag= n 4627..4718
primer_bind	/*tag= o /label= "B" 4891..4908
primer_bind	/*tag= p 10007..10025
exon	/*tag= q 10115..10233
primer_bind	/*tag= r /label= "C" 10209..10227
misc_binding	/*tag= s 10216..10240
allele	/*tag= t /note= "binds probe" replace(10228,T)
primer_bind	/*tag= u complement(10229..10247)
primer_bind	/*tag= v 10267..10285
misc_binding	/*tag= w 10274..10298
allele	/*tag= x /note= "binds probe" replace(10286,T)
primer_bind	/*tag= y complement(10287..10305)
allele	/*tag= z replace(10370,)
primer_bind	/*tag= aa 10411..10430
exon	/*tag= ab 26810..26897
exon	/*tag= ac /label= "D" 31357..31471
exon	/*tag= ad /label= "E"

  

exon	34261..34404
exon	/*tag= ae /label= "F" 37377..37466
exon	/*tag= af /label= "S" 39704..40858
primer_bind	/*tag= ag 39556..39574
primer_bind	/*tag= ah 39877..39896
primer_bind	/*tag= ai 39925..39943
misc_binding	/*tag= aj 39932..39956
allele	/*tag= ak /note= "binds probe" replace(39944,T)
primer_bind	/*tag= al complement(39945..39963)
primer_bind	/*tag= am 39953..39970
primer_bind	/*tag= an 39954..39972
misc_binding	/*tag= ao 39961..39985
allele	/*tag= ap /note= "binds probe" replace(39973,C)
primer_bind	/*tag= aq complement(39974..39992)
primer_bind	/*tag= ar 40242..40259
primer_bind	/*tag= as 41137..41154
primer_bind	/*tag= at 41366..41384
misc_binding	/*tag= au 41373..71397
allele	/*tag= av /note= "binds probe" replace(41385,C)
primer_bind	/*tag= aw 41385..41403
primer_bind	/*tag= ax complement(41386..41404)
misc_binding	/*tag= ay 41392..41416
allele	/*tag= az /note= "binds probe" replace(41404,C)
primer_bind	/*tag= ba complement(41405..41423)
primer_bind	/*tag= bb 41564..41581
primer_bind	/*tag= bc 42122..42141
primer_bind	/*tag= bd 42213..42231
misc_binding	/*tag= be 42220..42244
allele	/*tag= bf /note= "binds probe" replace(42232,C)
primer_bind	/*tag= bg complement(42233..42251)
primer_bind	/*tag= bh 42526..42543
exon	/*tag= bi 50436..50545
exon	/*tag= bj /label= "G"

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FT primer_bind 67289..67309
FT /tag= bk
FT primer_bind 67456..67474
FT /tag= bl
FT misc_binding 67463..67487
FT /tag= bm
FT /note= "binds probe"
FT replace(67475,6)
FT /tag= bn
FT primer_bind complement(67476..67494)
FT /tag= bo
FT primer_bind 67724..67741
FT /tag= bp
FT primer_bind 69182..69200
FT /tag= bq
FT primer_bind 69502..69520
FT /tag= br
FT misc_binding 69509..69533
FT /tag= bs
FT /note= "binds probe"
FT replace(69521,6)
FT /tag= bc
FT primer_bind complement(69522..69540)
FT /tag= bu
FT primer_bind 69609..69626
FT /tag= bv
FT primer_bind 72698..72715
FT /tag= bw
FT primer_bind 72819..72837
FT /tag= bx
FT misc_binding 72826..72850
FT /tag= by
FT /note= "binds probe"
FT replace(72838,1)
FT /tag= bz
FT primer_bind complement(72839..72857)
FT /tag= ca
FT exon 72881..72918
FT /tag= cb
FT /label= "H"
FT /tag= cc
FT primer_bind 73099..73117
FT /tag= cc

Query Match 11.8%; Score 82.6; DB 22; Length 240825;
Best Local Similarity 55.8%; Pred. No. 9.8e-12;
Matches 244; Conservative 0; Mismatches 179; Indels 14; Gaps 4;

QY 141 agcacattcaccaatgatgagagaccagaagaagatgagatcatctgccaat 200
DB 70934 agagaatgatgaaagtgtcagcatagacaagaagagtgagccacaggccaccac 70993
QY 201 gttactggatccagggtgttacctagtggtgttccaaatggggaactgtaattgtag 260
DB 70994 ctttaaggggcaggcaggtgttccaagcaggttctcgaagggaattttagtgtga 71053
QY 261 gtttaatgcagagcaagaatgcatctgtaggcatcttgagctgaaagatgtacct 320
DB 71054 gtttaaaacagcagcatagatttca--gatacacacagcaactgagagtggtccctg 71111
QY 321 tggcata----tctgcacaatctgacagtgatccaagccaagtagctgtagtag 376
DB 71112 tggcatactccacagtcacatggtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 71171
QY 377 tctctctatagggtgtgtaccagagcagtggtgaagtaaaatcctgactgaacat 436
DB 71172 cttagagagcgctcaccagaagaagaggtgtataagcagatccctgtatcaaccca 71231
QY 437 tggaggaatggaagaggtggaagattttaacogtgtctagctgaagactgctt 496
DB 71232 ctgagagctgtggtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 71284
QY 497 ctggtatg--gaaaatccaactatatttaatcatcagccagcaacaataaattaa 555
||||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

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DB 71285 ctggtatgagaggttaactatcatcaaaatagatgccaggctatatgaactgtca 71344
QY 556 gaattaccacaatagc 572
DB 71345 gttaccactacagtcgc 71361

RESULT 14
AAC77505/c
ID AAC77505 standard; cDNA; 375 BP.
XX
XX AAC77505;
AC
XX
XX AAC77505;
DT 08-FEB-2001 (first entry)
XX
XX Human ORFX ORF3060 polynucleotide sequence SEC ID NO:6119.
DE
XX Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
XX vulnery; antiparkinsonian; antiparkinsonian; hypertrophic; neuroprotective;
XX anticonvulsant; osteopathic; antirheumatic; immunosuppressant; cardiant;
XX immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
XX hypotensive; dermatological; immunosuppressive; antineoplastic;
XX antiviral; antibacterial; antifungal; antirheumatic; antihypertensive;
XX antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
XX neurodegenerative disorder; osteoarthritis; graft vs host disease;
XX cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
XX cholesterol ester storage; systemic lupus erythematosus; infection;
XX severe combined immunodeficiency; malaria; an oluminate disorder; asthma;
XX allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
XX bone damage; cartilage damage; antineoplastic; antineoplastic; disease;
XX thrombosis; contraceptive; ss.

OS Homo sapiens.
XX
XX WO200058473-A2.
XX
XX 05-OCT-2000.
XX
XX 31-MAR-2000; 2000MO-US08621.
XX
XX 31-MAR-1999; 99US-0127607.
XX
XX 02-APR-1999; 99US-0127636.
XX
XX 05-APR-1999; 99US-0127728.
XX
XX 30-MAR-2000; 2000US-0540763.
XX
XX (CURA-) CURAGEN CORP.
XX
XX Shinkets RA, Leach M;
XX WPI: 2000-602362/57.
XX
XX P-P-SDB; AAB43296.
XX
XX Novel nucleic acids and peptides derived from open reading frame X,
XX useful for treating e.g. cancers, proliferative disorders,
XX neurodegenerative disorders and cardiovascular disease -
XX
XX Claim 5; Page 5301; 5507PP; English.
XX
XX AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
XX which represent the human ORFX open reading frames 1 to 3161. The ORFX
XX sequences have activities such as: cytostatic; hepatotropic; vulnery;
XX antiparkinsonian; antiparkinsonian; hypertrophic; neuroprotective;
XX osteopathic; anticonvulsant; antirheumatic; immunosuppressant;
XX immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
XX antidiabetic; hypotensive; dermatological; immunosuppressive;
XX antineoplastic; antibacterial; antifungal; antirheumatic; antihypertensive;
XX antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
XX neurodegenerative disorder; osteoarthritis; graft vs host disease;
XX cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
XX cholesterol ester storage; systemic lupus erythematosus; infection;
XX severe combined immunodeficiency; malaria; an oluminate disorder; asthma;
XX allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
XX bone damage; cartilage damage; antineoplastic; antineoplastic; disease;
XX thrombosis; contraceptive; ss.
XX
XX graft vs host disease, cardiovascular disease, diabetes mellitus,
XX

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CC hypertriglyceridemia, hypothyroidism, cholesterol ester storage, systemic lupus  
CC erythematous, severe combined immunodeficiency (SCID), AIDS, viral,  
CC bacterial or fungal infection, melaria, autoimmune disorders, asthma,  
CC allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,  
CC nocturnal haemoglobinuria, antiflammatory disease; to enhance  
CC coagulation; to inhibit thrombosis; and as a contraceptive.  
XX  
XX  
XX Sequence 375 BP; 87 A; 121 C; 74 G; 93 T; 0 other;

Query Match	11.4%	Score 79.8;	DB 21;	Length 375;
Best Local Similarity	64.2%	Pred. No. 7.5e-12;		
Matches 120; Conservative	0;	Mismatches 67;	Indels 0;	Gaps 0;

[illegible]

RESULT	15
AAV39012	
ID	AAV39012 standard; DNA; 1906 BP.
XY	

DT 23-SEP-1998 (first entry)  
 VY

CD30 Ligand, gene used in the course of the invention

accessory molecule ligand; AML: gene therapy; treatment; neoplasia  
autoimmune disorder; rheumatoid arthritis; vaccine; ss.

OS Homo sapiens.

PN WO9826061-A2

18-JUN-1998.

08-DEC-1997: 97W0-11S227A0

01-DEC-1007 0700 00000000

09-DEC-1996; 96US-0032145.

PA (REGC ) UNIV CALIFORNIA.

Cantwell M, Kipps TJ, Sharma S;

WPI; 1998-348521/30.

vectors containing accessory molecule ligand genes - used for altering immunoreactivity of cells, particularly for treatment of neoplasia or autoimmune disorders, e.g. rheumatoid arthritis

Disclosure; page 114; 167pp; English.

The present sequence represents a CD30 ligand gene. The sequence is used to exemplify the method of the invention. The specification describes a method for altering the immunoreactivity of human cells which comprises introducing a gene encoding an accessory molecule (ligand) into the cells so that the AML is expressed on the surface

CC of the cells. Vectors containing the AML genes can be used in gene  
CC therapy for treating neoplasia or autoimmune disorders such as Rheumatoid  
CC arthritis. They can also be used for vaccination to produce immunity  
CC against a virus cell, bacteria, protein, fungus or neoplasia.  
XX  
SQ Sequence 1906 BP; 559 A; 447 C; 438 G; 462 T. 0 other;

Query Match	8.3%	Score 58.2	DB 19	Length 1906
Best Local Similarity	75.8%	Pred. No. 5.6e <sup>-06</sup>		
Matches 72; Conservative	0	Mismatches .33	Indels 0	Gaps 0

QY	Db
466	1811
aaacgggttgatgagttgacaaagacctggttcgcatgagaaatcaatcaattat	aaccatcatcaaggcgacaaagccggttcgcgaatgagaaatcaatcaattg
525	1870
aaacgggttgatgagttgacaaagacctggttcgcatgagaaatcaatcaattat	aaccatcatcaaggcgacaaagccggttcgcgaatgagaaatcaatcaattg
526	1871
aatgcatagcacgaacaataataataagaatt	aatgcattgcacgaagcacaataataataagaatt
560	1905
aatgcattgcacgaagcacaataataataagaatt	aatgcattgcacgaagcacaataataataagaatt

Search completed: August 27, 2001, 18:00:22  
Job time: 8365 sec



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